

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 29757/P-399	<b>FOR FURTHER ACTION</b>	See item 4 below
International application No. PCT/US2004/025132	International filing date ( <i>day/month/year</i> ) 03 August 2004 (03.08.2004)	Priority date ( <i>day/month/year</i> ) 11 August 2003 (11.08.2003)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant IGT		

1.	This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 <i>bis</i> .1(a).																								
2.	This REPORT consists of a total of 12 sheets, including this cover sheet.  In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.																								
3.	<p>This report contains indications relating to the following items:</p> <table style="width: 100%;"> <tr> <td style="width: 10%; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 30%;">Box No. I</td> <td style="width: 60%;">Basis of the report</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input checked="" type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input checked="" type="checkbox"/>	Box No. VII	Certain defects in the international application	<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application
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<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application																							
4.	The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).																								

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Date of issuance of this report 13 February 2006 (13.02.2006)
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# PATENT COOPERATION TREATY

REC'D 18 FEB 2005

From the  
INTERNATIONAL SEARCHING AUTHORITY

WIPO PCT

PCT

To:

see form PCT/ISA/220

24/2

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/US2004/025132

International filing date (day/month/year)  
03.08.2004

Priority date (day/month/year)  
11.08.2003

International Patent Classification (IPC) or both national classification and IPC  
G07F17/32

Applicant  
IGT

### 1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

### 3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US2004/025132

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**Box No. I Basis of the opinion**

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1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing:
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US2004/025132

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**Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

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The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

- ☐ the entire international application,
- ☒ claims Nos. 1-2, 5-15, 18-45

because:

- ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):
- ☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 1-2, 5-15, 18-45 are so unclear that no meaningful opinion could be formed (*specify*):

**see separate sheet**

- ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
- ☐ no international search report has been established for the whole application or for said claims Nos.
- ☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:
  - the written form ☐ has not been furnished
  - ☐ does not comply with the standard
  - the computer readable form ☐ has not been furnished
  - ☐ does not comply with the standard
- ☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.
- ☒ See separate sheet for further details

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US2004/025132

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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	3-4,16-17,47-49
	No: Claims	46
Inventive step (IS)	Yes: Claims	
	No: Claims	3-4,16-17,46-49
Industrial applicability (IA)	Yes: Claims	1-49
	No: Claims	

2. Citations and explanations

**see separate sheet**

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**Box No. VII Certain defects in the international application**

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The following defects in the form or contents of the international application have been noted:

**see separate sheet**

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**Box No. VIII Certain observations on the international application**

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The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

**Re Item I**

**Basis of the report**

**1 Prior Art**

Reference may be made to the following documents:

- D1: EP-A-1 063 622 (WMS GAMING, INC) 27 December 2000 (2000-12-27)
- D2: US-A-6 072 545 (GRIBSCHAW ET AL) 6 June 2000 (2000-06-06)
- D3: EP-A-1 465 126 (WMS GAMING, INC) 6 October 2004 (2004-10-06)
- D4: US 2002/067467 A1 (DORVAL RICK K ET AL) 6 June 2002 (2002-06-06)
- D5: US 2002/008676 A1 (MIYAZAKI MAKOTO ET AL) 24 January 2002 (2002-01-24)

**Re Item III**

**Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

**2 Conciseness**

The application as published contains five independent gaming apparatus claims. This is not a reasonable amount within the meaning of Rule 6.1(a) PCT, due to which the application is not concise within the meaning of Article 6 PCT.

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**3 Opinion**

An opinion of the International Search Authority with regard to novelty and inventive step is being made only for one independent apparatus claim. For this examination, the broadest claim, being claim 3, is being examined.

In the present case, the claims are hybrid claims. These are claims that contain technical features as well as features which are considered to be non-technical. Features which are considered to be non-technical are listed in Rules 39.1 and 67.1 PCT.

Despite the fact that the claims contain features which are considered non-technical the claims, considered as a whole each, are considered to be technical. However, such non-technical features cannot contribute to any inventive step of the relevant claim. In fact, the non-technical features of a claim may well be cited in the formulation of a technical problem to be solved by a person skilled in the art during the assessment of inventive step using the problem-and-solution approach.

As a result of this, as a pre-requisite step to assessing the inventive step of a claim it is necessary to evaluate the claim with respect to the technical and non-technical features of that claim. It is noted that this evaluation is not an ex post facto analysis of a claim since this separation of features is not done in view of any prior art, but in view of the features laid down in Rules 39.1 and 67.1 PCT. In the case of this particular application, the relevant exclusions are:

- 1) Schemes, rules or methods for playing games;
- 2) the mere presentation of information; and
- 3) Computer programmes.

### 3.1 Independent Claim 3

#### **The Closest Prior Art**

Document D1, which is considered to be the closest prior art, discloses a gaming apparatus (figure 1), comprising:

- a display unit (figure 1) capable of generating a non-planar, three-dimensional video image, said display unit comprising a non-planar, three-dimensional display screen in the shape of a dome and capable of displaying said non-planar, three-dimensional video image,
- a value input device (figure 2, reference 18);
- a controller operatively coupled to said display unit and said value input device,

- said controller comprising a processor and a memory operatively coupled to said processor (figure 2),
- said controller being programmed to allow a person to make a wager (implicit).

### **The Difference**

The difference between claim 3 and D1 is that

- the display unit is capable of generating a non-planar, three-dimensional video image, said display unit comprising a non-planar, three-dimensional display screen in the shape of a dome and capable of displaying said non-planar, three-dimensional video image, and
- said controller being programmed to convert two-dimensional image data into three-dimensional image data by correcting for at least one of the following distortions: image distortion, brightness distortion and colour aberrations when said two-dimensional image data is displayed on said non-planar, three-dimensional display screen as a video image
- said controller being programmed to translate one or more pixels of said two-dimensional image data if said distortion comprises image distortion,
- said controller being programmed to vary the size of one or more pixels of said two-dimensional image data if said distortion comprises image distortion,
- said controller being programmed to adjust the brightness of one or more pixels of said two-dimensional image data if said distortion comprises brightness distortion,
- said controller being programmed to adjust the colour of one or more pixels of said two-dimensional image data if said distortion comprises colour aberrations,
- said controller being programmed to cause a non-planar, three-dimensional video image to be generated on said display unit from said three-dimensional image data, said non-planar, three-dimensional video image representing a game,
- said controller being programmed to determine, after said non planar, three-dimensional video image has been displayed, a value payout associated with an outcome of said game represented by said three-dimensional video image.



### **The Effect of this Difference**

This difference has mainly the effect that the payer experiences more excitement while playing a game on a machine equipped with a three dimensional display. However, increasing the excitement of a person or player is not a technical effect. It is, nevertheless, necessary to have a technical effect in order to derive a technical problem, which, in turn, is presented to the person skilled in the art.

### **The Objective Technical Problem to be solved**

From the above mentioned difference, in particular concerning the three dimensional display, no technical problem can be derived. Since this concerns the display of information (which is considered to be non-technical, cf. section 3, above) only a non-technical problem can be derived (i.e. the increase of excitement for a player).

Considering that non-technical aspects may be used in formulating the technical problem to be solved, the objective technical problem to be solved in the present case may be formulated as: "Having a gaming machine as in D1, to mount a tree-dimensional display onto such a machine in order to increase the excitement for the player when playing on such a machine."

### **Further Documents**

Considering the above objective technical problem the person skilled in the art is facing, he or she would further consider document D2 when attempting to solve this problem.

D2 discloses a display unit capable of generating a non-planar, three-dimensional video image, said display unit comprising a non-planar, three-dimensional display screen in the shape of a dome and capable of displaying said non-planar, three-dimensional video image (figure 1). Further, D2 reveals the conversion of two-dimensional image data into three-dimensional image data by correcting for at least one of the following distortions: image distortion, brightness distortion and

colour aberrations when said two-dimensional image data is displayed on said non-planar, three-dimensional display screen as a video image ("The combination of light valve technology and the novel projection screen results in an image that may be thirty times brighter than the source image would be on a normal screen", col. 5, lines 60-63; and further discloses: "A more preferred method, however, involves electronic image rotation through the light valves. In an electronic image rotation system, a colour processor circuit is utilized to separate red, green and blue (RGB)", col. 4, lines 22-27).

Combining the teachings of document D1 and D2, the person skilled in the art would solve the above problem without exercising any inventive skill. Therefore, claim 3 does not comprise an inventive step within the meaning of Article 33(3) PCT.

### 3.2 Independent Claim 46

The claimed subject-matter is a gaming method comprising:

- receiving two-dimensional image data;
- converting said two-dimensional image data into three-dimensional image data;
- causing a non-planar, three-dimensional video image representing a game to be generated on a non-planar, three-dimensional display screen from said three-dimensional image data, said three-dimensional video image representing one of the following games: video poker, video blackjack, video slots, video keno or video bingo,
- said non-planar, three-dimensional video image comprising an image of at least five playing cards if said game comprises video poker,
- said non-planar, three-dimensional video image comprising an image of a plurality of simulated slot machine reels if said game comprises video slots,
- said non-planar, three-dimensional video image comprising an image of a plurality of playing cards if said game comprises video blackjack,
- said non-planar, three-dimensional video image comprising an image of a plurality of keno numbers if said game comprises video keno, and
- said non-planar, three-dimensional video image comprising an image of a bingo grid if said game comprises video bingo;
- and determining a value payout associated with an outcome of said game

represented by said non-planar, three-dimensional video image.

### **The Non-Technical Features**

The non-technical features of the claim are considered to be:

- the three-dimensional video image representing one of the following games: video poker, video blackjack, video slots, video keno or video bingo,
- said non-planar, three-dimensional video image comprising an image of at least five playing cards if said game comprises video poker,
- said non-planar, three-dimensional video image comprising an image of a plurality of simulated slot machine reels if said game comprises video slots,
- said non-planar, three-dimensional video image comprising an image of a plurality of playing cards if said game comprises video blackjack,
- said non-planar, three-dimensional video image comprising an image of a plurality of keno numbers if said game comprises video keno, and
- said non-planar, three-dimensional video image comprising an image of a bingo grid if said game comprises video bingo.

### **The Technical Features**

As a consequence, the technical features are a gaming method comprising:

- receiving two-dimensional image data;
- converting said two-dimensional image data into three-dimensional image data;
- causing a non-planar, three-dimensional video image representing a game to be generated on a non-planar, three-dimensional display screen from said three-dimensional image data.

As explained under section 3.1 "The Closest Prior Art", all the technical features of claim 46 are known from D1. Further, and determining a value payout associated with an outcome of said game is implicit for all gaming machines. As the difference between the claim and D1 are merely non-technical features from which no technical difference and hence no technical problem can be derived, the claim cannot be considered inventive within the meaning of Article 33(3) PCT.

**Re Item VII**

**Certain defects in the international application**

- 4 The lack of conciseness as indicated under section 2 of this opinion is considered a defect. If any amendments are being filed, remedy is requested.

**Re Item VIII**

**Certain observations on the international application**

- 5.1 When amendments are being filed to the application it is suggested that the new request contains only one independent claim per category. It is further pointed out that specific features of a claim which would fall under any of the exclusions as listed under Rules 39.1(i)-(vi) or 67.1(i)-(vi) PCT. Such features cannot render the claim non-technical as a whole. On the other hand, such features can also not add to the inventive step of the relevant claim. Considering further that the independent claims should contain all **essential** features of the claim it is suggested not to have any non-technical features in the independent claims.
- 5.2 In a letter of reply, the Applicant is kindly invited to state what exactly the technical problem is which is considered solved by any independent claim. Such a problem would further have to be solved by the subject-matter of the claim in a non-obvious manner. This seems to be the most urgent deficiency of the present application.
- 5.3 If the Applicant wishes to enter the European phase before the European Patent Office it is kindly requested to consider that document D3 may well be citeable prior art within the meaning of Article 54(3) EPC. In that case, any request would also have to be distinguishable over D3.